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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,497	10/17/2003	Brett D. Whitmer	03004812US	1970

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EXAMINER	
NGUYEN, TRINH T	

ART UNIT	PAPER NUMBER
3644	

DATE MAILED: 02/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/688,497	WHITMER ET AL.	
	Examiner	Art Unit	
	Trinh T Nguyen	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26,31 and 32* is/are pending in the application.

4a) Of the above claim(s) *14-20,31 and 32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 21-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-13, and 21-26 in the reply filed on 11/4/04 is acknowledged.

2. Claims 14-20, 31, and 32 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-13, and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (as set forth in paragraphs [0002] to [0006] and Figures 1 & 2; hereinafter is referred to as AAPA).

For claims 1, 21, 23 and 24, AAPA discloses an aircraft system comprising: a wing; an external structure positioned proximate to the wing; and a fitting attached to the wing and configured approximately all of the primary loads from the external structure to the wing, the primary loads including pitch loads and side loads, the unitary fitting including a first portion (221a, 221b) and a second portion (224a, 224b), the first portion having at least a first attach feature (bore on 221a) and the second portion having at

least a second attach feature (bore on 224a) spaced apart from the first attach feature, the first attach feature being configured to transfer at least a portion of the pitch loads from the external structure to the wing, and the second attach feature being configured to transfer at least a portion of the side loads from the external structure to the wing.

AAPA discloses most of the claimed invention except for indicating that the fitting is unitary or formed by fixedly attaching two portions together. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the fitting of AAPA as one unit, since it has been held that forming in one piece/unit an article which has formerly been formed in two pieces and put together involves only routine skill in the art.

For claim 2, AAPA further discloses the wing includes a front spar (211), and wherein the first and second portions of the fitting are configured to be fixedly attached at least proximate to the front spar.

For claims 3 and 22, AAPA further discloses the wing includes a front spar (211) and a wing skin portion (205) extending aft from the front spar, wherein the first portion of the fitting is configured to be fixedly attached at least proximate to the front spar, and wherein the second portion of the fitting is configured to be fixedly attached at least proximate to the wing skin portion.

For claim 4, AAPA further discloses the first portion of the fitting further includes a third attach feature (bore on 221b) spaced apart from the first attach feature and coupled to the external structure, the third attach feature configured to transfer at least a portion of the pitch loads from the external structure to the wing.

For claim 5, AAPA further discloses the first portion of the fitting further includes a third attach feature (bore on 221b) spaced apart from the first attach feature (bore on 221a), wherein the first attach feature includes a first bore coupled to the external structure and the third attach feature includes a second bore coupled to the external structure, and wherein the second portion of the fitting further includes a fourth attach feature (bore on 224b) spaced apart from the second attach feature (bore on 224a), wherein the second attach feature includes a third bore coupled to the external structure and the fourth attach feature includes a fourth bore coupled to the external structure.

For claim 6, AAPA discloses most of the claimed invention except for indicating that the third and fourth bores are at least generally aligned along a common axis. However, it would have been an obvious matter of design choice wherein no stated problem is solved, or any new or unexpected result achieved to have the third and fourth bores aligned along a common axis versus the third and fourth bores aligned in different axis as taught by AAPA. Furthermore, one of ordinary skill in the art would have expected applicant's invention to perform equally well with the third and fourth bores aligned in different axis.

For claim 7, AAPA further discloses the first portion of the fitting further includes a third attach feature spaced apart from the first attach feature, wherein the first attach feature includes a first bore coupled to the external structure and the third attach feature includes a second bore coupled to the external structure, and wherein the second portion of the fitting further includes a fourth attach feature spaced apart from the

second attach feature, wherein the second attach feature includes a third bore coupled to the external structure and the fourth attach feature includes a fourth bore coupled to the external structure, further wherein the first, second, third and fourth bores are at least generally parallel.

For claims 8 and 9, AAPA further discloses the external structure includes an engine (106) (note that AAPA's engine can be considered as a propulsive engine or a turbo-fan engine).

For claims 10-12, AAPA discloses most of the claimed invention except for indicating that the external structure includes a fuel tank or a weapons system or a cargo hold. It is notoriously well known in the art of aircraft to provide such external structure in order to realize the benefits thereof (i.e. the fuel tank as a source of fuel, the weapons system as a source of weapon, and the cargo as a source of hold goods). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the external structure of AAPA so as to include a fuel tank or a weapons system or a cargo hold, since it is notoriously well known in the art of aircraft to have the external structure includes a fuel tank or a weapons system or a cargo hold in order to realize the benefits thereof (i.e. the fuel tank as a source of fuel, the weapons system as a source of weapon, and the cargo as a source of hold goods).

For claim 13, AAPA further discloses a fuselage, wherein the wing extends outwardly from the fuselage.

For claim 25, AAPA further discloses the first portion of the body further includes a third attach feature (bore on 221b) configured to be coupled to the external structure, and the second portion of the body further includes a fourth attach feature (bore on 224b) configured to be coupled to the external structure, wherein the first attach feature includes a first bore and the third attach feature includes a second bore spaced apart from the first bore, the first and second bores being at least generally parallel (noted that the first bore is parallel to the second bore based on the axes drawn through those bores, see attached Figure 2 of AAPA for further explanation), and wherein the second attach feature includes a third bore and the fourth attach feature includes a fourth bore spaced apart from the third bore, the third and fourth bores being at least generally parallel (noted that the third bore is parallel to the fourth bore based on the axes drawn through those bores, see attached Figure 2 of AAPA for further explanation).

For claim 26, AAPA further discloses the body includes at least one crack inhibiting mechanism positioned adjacent to at least one of the first and second attach features, wherein the crack inhibiting mechanism is configured to arrest crack propagation from proximate to one of the first and second attach features to proximate the other one of the first and second attach features (lines 3-9 of col. 10 of the spefication indicated that the crack inhibiting mechanism is well known in the art).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh T Nguyen whose telephone number is (703) 306-9082. The examiner can normally be reached on M-F (9:30 A.M to 6:00 P.M).

The examiner's supervisor, Teri Luu can be reached on (703) 305-7421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Trinh T Nguyen
Patent Ex.
Art Unit 3644
1/31/05

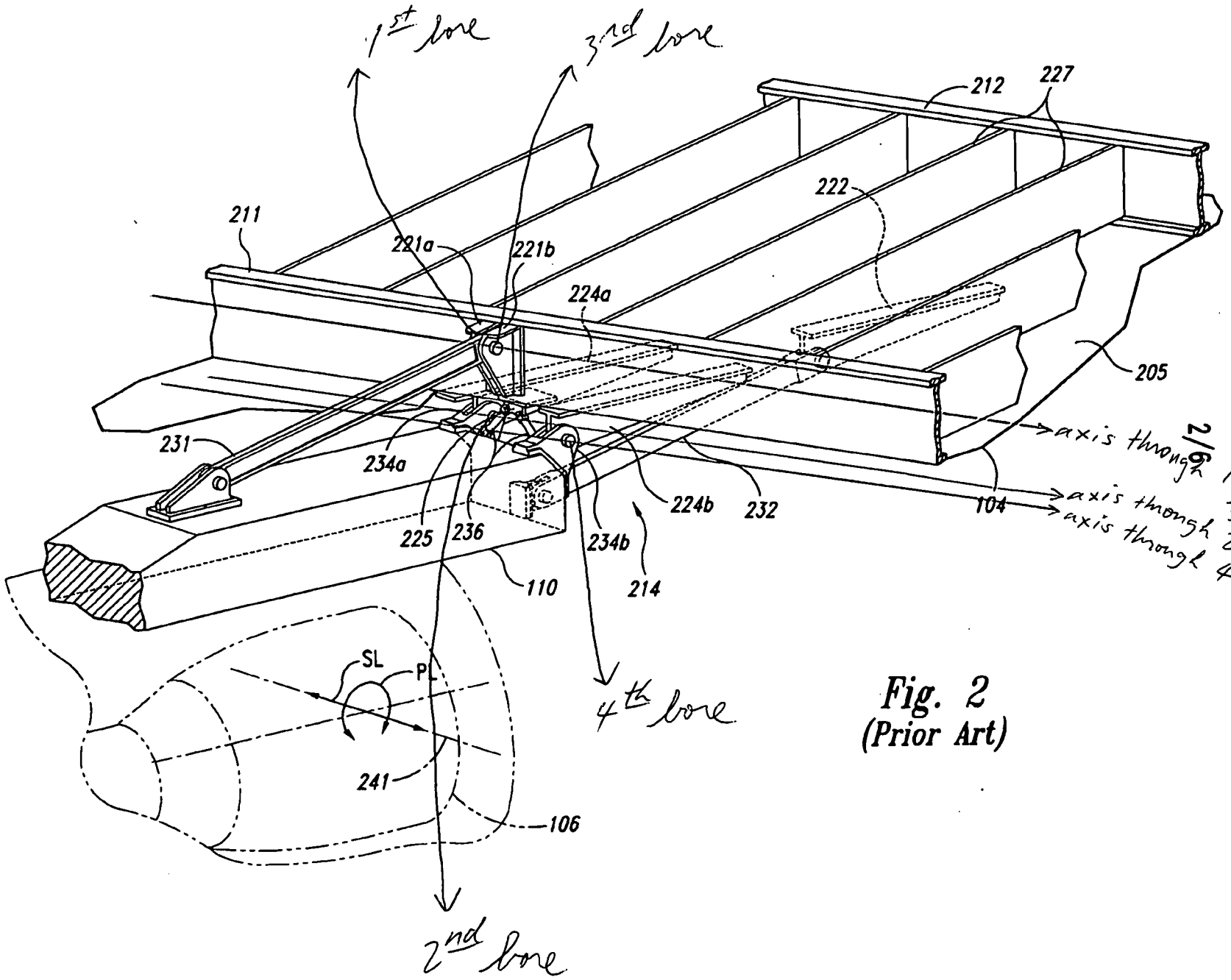

Fig. 2
(Prior Art)